

## GE Mapping Protocol for Science

### Preparation:

- Print and cut enlarged GEs into strips that allow everyone to be part of the conversation (different color for each content area).



### Process:

- **Engagement Activity:** This may vary depending upon the group. If teachers don't have a clear understanding of the GEs, then a *GE Scavenger Hunt* might be a good way to start. A variety of simple science tasks can also work well to start meetings.
- **Explore the Science GEs:**
  - Teachers work in grades cluster teams (Grades 3-4) to group the GEs that would connect well for a unit of study. Each team of teachers could possibly group different domains and then share their ideas with others. Teachers create these groupings for each domain of science:
    - *Life Science*
    - *Human Body*
    - *Universe, Earth, & Environment*
    - *Physical Science*
  - Table Walk:
    - Review the work of other groups and write comments/concerns/ questions on sticky notes and post on related chart paper.
    - Look for connections and record your ideas about how your groupings might be related to groupings in different domains of science.
  - Discuss Table Walk observations.
  - After grouping all of the domains, teacher teams identify connections between GE groupings. For instance, intentionally connecting soil related GEs (Universe, Earth, & Environment) and living organisms GEs (Living World) would allow teachers to address these GEs through a living world unit about plants and animals.
    - Once the larger groups have been identified, glue these GE strips onto chart paper.
  - Overlay *Inquiry GEs* across all domains—Teams should look at the larger groups of GEs and determine which Inquiry GEs are most applicable to the content. (A color coding dot system works well.) For instance, space science content doesn't lend itself as well to experimental design as physical science content.
  - Create a name for each group of GEs.
- **Closure**

*Reasonable place to break so that teachers can bring back information to other grade level teachers or have time to reflect on their work.*

- **Engagement Activity: Inquiry Puzzle:** Teachers organize GE strips of different components of inquiry (i.e., Questioning K-8) into sequential order from a beginning level of complexity to the most advanced level of content complexity.
- **Grade Level Assignment of GE Units**
  - Identify which grade level will be responsible for each group of GEs.
    - Review the K-2 grade level expectations so that you can intentionally build on that work.
    - Identify criteria for making the grade level assignments. Some possibilities might include:
      - Higher level of cognitive complexity might be a good reason to assign a unit to the higher grade in the cluster.
      - Do you want to intentionally alternate content areas across grade levels?
      - How does this connect to other content at the grade level?
  - Assign GE Units to a grade level.
  - Record the names of GE Units on chart paper under the appropriate grade level—this provides an opportunity for teachers to look for balance across grade levels.
  - A draft with the criteria for decision making should be provided for teachers to bring back to their teams for feedback.
- **Closure**

*Once GEs have been assigned to grade levels, teacher can explore their content through a Curriculum Topic Study.*

- **Curriculum Topic Study:** Once teachers have identified the units that will be taught at their grade level, a curriculum topic study will provide essential information for teaching the unit.
  - Strengthen adult content knowledge
  - Clarify instructional implications and appropriate student understanding
  - Identify misconceptions related to grade level content
    - Questions related to these misconceptions can be incorporated into assessments
- **Assessment Development**
- **Unit Development/Selection of Science Kits**